


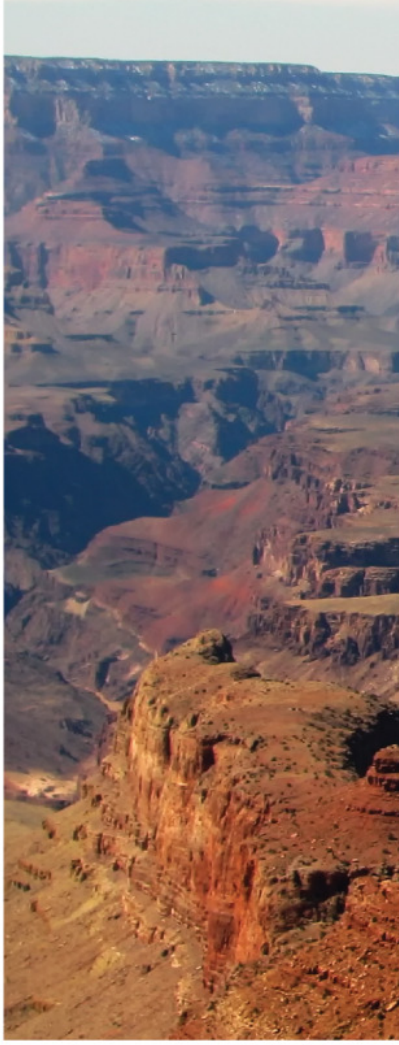

Arizona

Statewide Communication Interoperability Plan (SCIP) Implementation Report

July 2009

Homeland Security

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Successes and Challenges

State evaluation of successes and challenges

Successes

1. Advances in Governance: Over the past year, Arizona was one of six states to participate in the NGA Center for Best Practices Interoperability: Focus on Governance Policy Academy to help selected states improve the governance structures overseeing statewide communications interoperability planning and implementation. Arizona was also awarded a Technical Assistance Requests (TARs) by the Office of Emergency Communications (OEC) as part of the Interoperable Communications Technical Assistance Program (ICTAP) for an assessment and of a component of its Governance structure through a review of the PSCC General Policies or Charter. Both the Academy and the Governance Structures Assessment TAR were significant contributors to improving interoperability governance as follows:

- Realigning meeting schedules for PSCC and SIEC to facilitate direction setting and accelerate processing of recommendations.
- Moving key meetings to other areas of the State and including regional updates to encourage more regional and rural participation
- Naming the PSIC Office Manager to be Arizona's first Statewide Interoperability Coordinator
- Strengthening the SIEC by reconstituting and activating its workgroups
- Integrating Subject Matter Experts from throughout Arizona into working groups and the Stakeholder Resource Pool
- Beginning formation work for a State Agency Group dedicated to advancing state agency communications interoperability
- Instituting regular meetings between the PSIC Office and its critical partner agencies
- Forming and staffing a statewide outreach program with a dedicated Outreach Manager focused on increasing participation in governance, providing education and identifying unmet needs

2. Stakeholder Engagement and Interaction: In FY2009, Arizona recognized a gap in outreach efforts and developed a PSIC outreach program to promote interoperability awareness, initiatives, and best practices throughout Arizona. In a vast State with many remote areas and many critical public safety needs to address, it is difficult for all stakeholders to attend the PSCC and SIEC meetings. Given the limited number of PSCC appointees and the formality of the public meeting structure, some members of the public safety community did not feel that their voices could be heard. The State now actively encourages and coordinates collaborative efforts and helps identify and address State, regional, and local barriers to advancing interoperability solutions and usage.

To implement the program, the State recruited an Outreach Manager responsible for stakeholder engagement; information sharing; identification of needs and resources; and participation in training and exercises. By traveling to regions where interoperable communications are needed, the Public Safety Interoperable Communications Office (PSIC) can understand first hand the challenges facing the community in advancing interoperable communications and support the regions to overcome the challenges they face. The State also developed a user friendly website to be a resource for interoperable communications training, exercises, updated information, and that showcases interoperable communication success stories from across the State.

Arizona also developed partnerships with members of the PSCC, SIEC and workgroups as well as agency public information officers, communication managers, regional communication centers and emergency managers. These partnerships have allowed the State to leverage the knowledge and expertise of many

people, to be able to share interoperable communication information with their constituencies, and at the same time bring back information to the PSCC, SIEC and the PSIC Office for consideration.

3. Communications Focused Table Top Exercise: In May 2009, the Yuma County Region conducted a successful communications specific Tabletop Exercise (OP-TTX) supported by the U.S. Department of Homeland Security (DHS) Office of Emergency Communications' (OEC) Interoperable Communications Technical Assistance Program (ICTAP). The exercise was developed in partnership with emergency responders to ensure a realistic scenario and usable results. Participants included 69 local, state and federal first responders from 21 agencies.
The discussion-based exercise focused on existing plans, policies, mutual aid agreements and procedures used while emphasizing communications capabilities and identifying gaps. The exercise included an after action debrief and report that linked each gap with an ability to complete a task, documented potential real-life implications of not filling the identified gaps, and provided mitigation recommendations. The lessons learned from the exercise will also prove valuable as the Yuma region develops their Tactical Interoperable Communications Plan (TIC-P). In addition to the direct benefits provided to the Yuma County Region, the exercise also resulted in additional guidance and experience that will be applied to future communications exercises around the State of Arizona.

4. Successful Demonstration Project: In FY2009 Arizona successfully completed a large scale interoperability project demonstrating console patch and inter-system connectivity as potential solutions to meeting the interoperable communications needs of the State. The project provided ongoing functional enhancements to existing communications systems at the regional and state level that will continue to be of value to the State. Benefits of the project include:

- Both the Phoenix Regional Wireless Cooperative (RWC, previously PRWN) and Yuma Regional (YRCS) wireless networks were expanded, providing additional capacity and coverage to those systems.
- IGAs were established / supplemented between Yuma/Phoenix and DPS, identifying specific site and channel agreements governing shared locations and use of the equipment being implemented.
- A digital microwave path was established between the White Tanks and Oatman mountain sites, extending digital microwave connectivity into Yuma County and the Western Loop of the DPS Microwave Backbone network.
- Audio patching of talk groups between the Phoenix and Yuma systems was established, utilizing consoles on those systems that were located at DPS, and this method of interoperable communications was demonstrated.
- A prototype Inter Subsystem Interface (ISSI) capable of providing interconnectivity between systems was provided by Motorola, and this method of communicating between the Phoenix and Yuma systems was demonstrated.

Challenges

1. State Funding: As with many states, Arizona is facing enormous budgetary challenges leading to uncertain long term funding, as well as restrictions on procurement and hiring. The lack of state funding available for major infrastructure projects identified in our SCIP has hampered our ability to implement these projects as planned, and has resulted in delays or modifications to project plans. In cases where funding is available, there has been a lack of resources available to adequately implement SCIP objectives due to a freeze on hiring within the State. In addition, while funding has been available for certain

projects, new procurement requirements implemented due to the budget challenges have resulted in delayed project implementation.

2. Grants Management: Arizona relies on a significant amount of grant funding and technical assistance to implement interoperable communications projects. These grants are invaluable to the State in advancing our SCIP Implementation efforts. However, effective grants management has become an increasingly difficult task leading to delays in project implementation and ineffective resource allocation. Areas that can be improved include:

- Money available to the State in federal grants: Most grants limit the amount of funding available at the State level to 20%. This has made it difficult to implement large scale, statewide projects that benefit local jurisdictions. In addition, it results in multiple projects being implemented on a local jurisdiction level, that could instead be done on a uniform statewide level to the benefit of all jurisdictions.
- Reimbursement based funding: The budget challenges facing States often mean that there is not enough "upfront" money to bridge the gap between when expenses are incurred and when they are reimbursed. On major interoperable communications projects this can often mean that projects need to be delayed. The ability for States to draw down some funds prior to incurring expenses would help speed SCIP Implementation.
- Improved grant cycles: Many interoperable initiatives are multi-year projects that involve funding over multiple grant cycles. Inconsistencies between when grant guidance and awards are released on a year to year basis makes it difficult to effectively manage these initiatives and properly plan resource allocation and procurements.
- Increased Application Timelines and Technical Assistance: Many local jurisdictions lack the experience to effectively compete for federal grants. In addition, the budget challenges facing local jurisdictions often mean they do not have the resources available to compete for grants during the short timeframe between grant guidance being issued and when applications are due. Increasing the window during which grants may be applied for, and providing additional technical assistance (such as templates and draft applications) will help to address these problems.

3. Regulatory Environment: One of the challenges Arizona has faced associated with implementing large scale interoperable communications projects is the need to conduct Environmental Impact Assessments. . In addition to the time associated with completing the assessments, local jurisdictions lack the necessary experience in developing Request for Proposals (RFP) and project plans associated with these assessments. SCIP implementation can be delayed by months. Technical Assistance in the form of model RFP templates and Project Management experience would greatly enhance the states' ability to keep projects moving forward and avoid unnecessary delays and costs. Further, some effort should be made to assure that all such studies are actually needed rather than redundant of past efforts.

State & UASI Overview

Overview of the State, its UASIs and its interoperability challenges

Arizona has a total area of approximately 118,000 square miles, which makes it the sixth largest State in the United States. There are two major desert environments: the lower desert and the high desert. Each desert has its own special set of requirements for equipment, protection, weather conditions, and environmental concerns. The major natural disasters that impact Arizona are fires and flooding.

Arizona is bordered by the States of New Mexico, Utah, Nevada, and California, and the country of Mexico. Arizona shares a 389 mile international border with Mexico that is mostly unregulated and unprotected. Major challenges exist in adequately patrolling the area due to the limited number of existing border patrol resources. Arizona has bi-national agreements with Mexico that outlines each party's mutual support role in times of emergency or disaster, and provides training and exercise opportunities.

The most economically important port in Arizona is Nogales. Nogales is one of the four primary ports of entry between the United States and Mexico. Almost $19 billion in trade comes through this port annually, with 89 percent of all surface mode trade (e.g., truck, rail) between Arizona and Mexico passing through Nogales.

Arizona's critical infrastructure is focused around water, electricity, and telecommunications. The State has more than 400 dams, of which 130 are classified as requiring critical infrastructure protection. Hoover Dam, the largest freshwater reservoir in the United States, is a major component of the State's infrastructure because of the lakes, water supply, and hydroelectric production linked to its operation. It is also a major supplier of electric power to the western grid, which includes the States of Arizona, California, and Nevada.

The Palo Verde Nuclear Generating Station, the largest nuclear power generation facility in the United States, is on 4,000 acres of land and produces over 30,000 gigawatt-hours of electricity annually to serve approximately four million people in Phoenix, Arizona, and Southern California. In addition, some of the Nation's largest defense industrial contractors have facilities located in Arizona.

Arizona's population is growing rapidly and Phoenix is one of the fastest-growing cities in the United States. Estimates show that in 2009, Arizona will be home to 6.8 million people with the Phoenix metropolitan area (Maricopa County) having a population of 4.1 million and Pima County having a population of 1 million. These two counties represent 75 percent of the State's population.

Arizona is home to 22 Federally-recognized tribes that occupy a combined landmass of approximately 25 percent (21 million acres) of the State's land. There is a significant amount of Federal land in Arizona occupying over 28,723,148 acres, which makes it important to have Federal participation in the interoperable radio systems deployed in Arizona.

Arizona has approximately 281 first responder agencies with 15 sheriff's departments, 149 police departments, 117 fire districts, and many emergency medical services (EMS) providers.

There are two Urban Area Security Initiatives (UASIs) in Arizona: Phoenix and Tucson.

Arizona's SCIP identifies one formal Tactical Interoperable Communications Plan (TICP), which was created for Phoenix. The Phoenix TICP identifies the geographical areas covered in the plan and provides a point of contact that can identify the agencies and disciplines included in

the TICP. Tucson was designated a UASI region in January 2007, and is in the process of completing a TICP. The SCIP provides a point of contact for the Tucson UASI and identifies the geographical areas encompassed by the UASI. The SCIP states that Tucson UASI officials will work closely with the PSCC in the development of their TICP which is anticipated to be completed in 2009.

The TICP Scorecard recommendations are directly or indirectly in the updated SCIP Strategic Initiatives, including:

- Initiative 1: Expand and implement Interoperable Communications Governance Model & Plan.
- Initiative 3: Develop & implement Long-term Funding and Sustainability Strategy for interoperable communications.
- Initiative 9: Establish Policies, Standards and Procedures (PSP) Framework, and implement policies, standards and procedures, including SOPs, for interoperable communications.
- Initiative 10: Develop and implement a Training Plan to address interoperable communications.
- Initiative 11: Develop and implement a strategy for exercises focused on or incorporating interoperable communications.
- Initiative 12: Create and implement an education and outreach plan in support of interoperable communications.

Vision and Mission

Overview of the interoperable communications vision and mission of the State

In the fall of 2008, the Arizona Public Safety Interoperable Communications (PSIC) Office initiated a public review process to completely revise Arizona's Statewide Communications Interoperability Plan (SCIP), initially drafted in 2007. As part of this process, multiple stakeholder working sessions were conducted to garner feedback and input from the first responder community. Over 200 participants from multiple jurisdictions and disciplines were represented during these workshops.

Based on these community forums, the Public Safety Communications Advisory Commission (PSCC) approved a revised set of strategic initiatives and supporting objectives on May 19, 2009. The revised Strategic Initiatives and Supporting Objectives can be found in Appendix A.

The PSIC Office, under the guidance of the PSCC and with support from public safety stakeholders statewide, is in the process of revising the SCIP to reflect these new strategic initiatives and the updated interoperable communications vision and mission of the State. The revised SCIP will contain initiatives which span a timeframe from one to eight years (2009 – 2017), depending on the initiative.

Vision: Arizona's public safety personnel, at all levels of government and within non-governmental organizations, have access to quality interoperable communication systems, are adequately trained, and utilize such systems effectively in multi-disciplinary, multi-jurisdictional incident response.

Mission: Advance public safety communications interoperability statewide.

Arizona outlines five key areas that must be in place to achieve its mission and vision:

1. Governance and Funding
2. Standards Operating Procedures
3. Technology
4. Training and Exercise
5. Usage and Outreach

Governance

Overview of the governance structure and funding approach

Arizona's governance is a multi-level structure established to oversee interoperable communication efforts within the State.

The Public Safety Interoperable Communications (PSIC) Office in the Government Information Technology Agency (GITA) is responsible for advancing interoperable communications in Arizona and supporting the Public Safety Communications Advisory Commission (PSCC) and Statewide Interoperability Executive Committee (SIEC) in performance of their missions.

The PSCC was organized in 2000 and established under Arizona State law in 2004. Arizona's PSCC is legislatively enabled as an advisory body for statewide interoperability efforts. It consists of 15 governor-appointed members reflecting multi-disciplinary public safety and emergency management agencies including representatives from the Arizona Department of Public Safety, police, sheriff's office, fire, EMS, communications and the Arizona Department of Homeland Security. Appointments to the Commission are made so that the existing five federal emergency response regions in the State are as equally represented as possible. The GITA Director functions in the role of Chairman for the PSCC. The PSCC meets every other month to take actions in support of interoperability statewide.

The SIEC is a sub-committee of the PSCC and is responsible for technical and operational recommendations to the PSCC. The SIEC currently has authority over 700 megahertz (MHz), very high frequency (VHF), and ultra high frequency (UHF) interoperability frequencies. The SIEC has five members: two SIEC Co-Chairs appointed by the PSCC and three members selected by the SIEC Co-Chairs. The SEIC encourages broad participation in working groups from the public safety community including State, local, tribal and non-governmental representatives. The SIEC is supported by two working groups. The SIEC Operational Workgroup evaluates and makes recommendations to the SIEC on operational policies, standards and procedures, training, exercises and outreach as well as agreements between operational entities. The SIEC Technical Workgroup evaluates and makes recommendations on technical policies, standards and procedures, VHF, UHF and 700 MHz spectrum management, and utilization of the Communications Asset and Mapping Tool (CASM).

The key functions of the PSIC Office within GITA are:

- Serving as Arizona's Interoperability Representative (SWIC) *[Note: Actively participates in a number of federal, tribal and interstate partnerships, including the Region XI Emergency Communications Working Group (RECWG), Southwest Border Working Group (SWBWG), and the Regional Four Corners initiative (R4C).]*
- Planning & Consulting
- Funding & Reporting
- Logistics & Operations
- Stakeholder Engagement & Interactions (Interoperability Outreach Manager)

Arizona established a full-time interoperability coordinator in November of 2008. The SWIC point of contact for Arizona is Lisa Dee Meyerson, Statewide Interoperability Coordinator & Manager of the Public Safety Interoperable Communications Office (PSIC), GITA.

Over the past year, Arizona was one of six states to participate in the NGA Center for Best Practices Interoperability: Focus on Governance Policy Academy to help selected states improve the governance structures overseeing statewide communications interoperability planning and implementation. Arizona was also awarded a Technical Assistance Requests (TARs) by the Office of Emergency Communications

(OEC) as part of the Interoperable Communications Technical Assistance Program (ICTAP) for an assessment and of a component of its Governance structure through a review of the PSCC General Policies or Charter. Both the Academy and the Governance Structures Assessment TAR were significant contributors to improving interoperability governance as follows:

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The SAA for the State of Arizona is the Arizona Department of Homeland Security. The PSIC has regular meetings and conference calls with the SAA. Federal, county, tribal, and municipal leaders serve on each of the five Homeland Security Regional Advisory Councils (RACs) operating in the State, which are tasked with developing, implementing, and maintaining regional homeland security initiatives, and recommending the use of PSIC and other funds enabling communications interoperability within their regions.

The SAFECOM materials, particularly the Establishing Governance to Achieve Statewide Communications Interoperability - A Guide for SCIP Implementation are excellent resources that have and will continue to guide our Governance efforts. Additional information regarding the PSIC office, the PSCC, the SIEC and other components of our Governance Structure can be found at: http://azgita.gov/psic/

Governance Initiatives

The following table outlines Arizona's strategic Governance and Funding initiatives, gaps, owners, priority and status:

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
# 1. Expand and implement Interoperable Communications Governance Model & Plan.	Governance processes must evolve and mature.	PSIC/PSCC	Short-term, High Priority	In Progress
# 2. Develop Long-term Plan for Statewide Interoperability for voice and data.	A long-term plan for implementing voice and data interoperability is needed.	PSIC/PSCC	Medium-term, Medium Priority	In Progress
# 3. Develop & implement Long-term Funding	A long-term	PSIC/PSCC	Medium-term,	Not Started

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
and Sustainability Strategy for interoperable communications.	funding strategy is needed for sustainability.		Medium Priority	

Supportive Objectives for Initiative #1 - Expand Governance Model & Plan	Gap	Owner	Milestone Date	Status *(Complete, In Progress, Not Started)*
1.1. Conduct an annual SCIP review to update the plan.	Need to continually review and enhance the SCIP.	PSIC	Annual	In Progress
1.2. Develop a Comprehensive Emergency Communications Plan addressing regional emergencies, catastrophic loss and mass evacuation/ingress.	Communications is an integral part of the State's emergency planning.	PSIC	2010	Planned
1.3. Develop TICPs and utilization of CASM.	Need to formalize and manage plans and assets.	Regional Partners with Support from PSIC	2011	In Progress
1.4. Strengthen SIEC.	SIEC needs active participation from multiple jurisdictions, disciplines and regions of the state.	PSIC/PSCC/SIEC	2009	Complete

Standard Operating Procedures

Overview of the shared interoperable communications-focused SOPs

The Arizona Department of Homeland Security (AZDOHS) has oversight responsibilities to ensure State plans are NIMS compliant. Every jurisdiction in Arizona, either by ordinance or by order of the county executive, has implemented procedures to obtain and maintain NIMS and ICS compliance. An appointed NIMS compliance officer in each public safety agency is responsible for ensuring that SOPs and memorandums of understanding (MOUs) comply with NIMS and the National Response Plan.

AZDOHS and the Department of Emergency and Military Affairs (AZDEMA) assist local and tribal governments regarding NIMS compliance through regularly scheduled NIMS training courses and outreach programs. All PSIC Office staff members completed NIMS courses ICS-100.a: Introduction to Incident Command System (ICS) and ICS-700: National Incident Management System (NIMS), An Introduction this year.

Documents for coordination of statewide interoperable communications include (1) the Arizona Interagency Radio System (AIRS) State Plan, which provides guidance for the use of interoperability channels, and (2) the Arizona SIEC VHF Minimum Equipment Standards and (3) the Arizona SIEC UHF Minimum Equipment Standards, which detail minimum channel capacity, channel display, frequency range, narrowband capability, and Project 25 (P25) capability.

This year Arizona utilized one of its TARs to work with staff from ICTAP on an assessment and development of an SOP for the Arizona Interagency Radio System (AIRS). AIRS supports VHF, UHF, and 800 MHz frequencies used throughout the State, with a cross-band repeater configuration that allows communication between bands.

The outcome of this AIRS assessment was presented to the SIEC and is being used to support development of this important AIRS SOP for Arizona - due to be complete in 2009.

SOP Initiatives

The following table outlines our SOP strategic initiative, including gap, owner, priority and status:

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
# 9. Establish Policies, Standards and Procedures (PSP) Framework, and implement PSPs, including SOPs, for interoperable communications.	Additional standardization is needed for interoperable communications solutions operating across the State.	PSCC; SIEC	Medium-term, High Priority	In Progress

Technology

Overview of the technology approaches, current capabilities, and planned systems

Arizona operates on multiple State, regional, and local shared systems.

- The larger metropolitan areas have migrated to or are in the process of migrating to 700/800 MHz trunked P25 systems.

- State agencies operate mostly in the VHF radio band, with some in UHF and 800 MHz.

- The majority of land mobile radio (LMR) systems serving the more rural areas of the State are conventional VHF or UHF systems.

Arizona's short-term strategy includes expansion of AIRS coverage to provide a basic level of interoperability through national and State interoperability channels. AIRS supports VHF, UHF, and 800 MHz frequencies used throughout the State, with a cross-band repeater configuration that allows communication between bands. Interoperability capabilities varies from agency to agency and county to county; however, most have AIRS channels programmed in their radios. The Arizona SIEC has established a standardized nomenclature for the AIRS network mutual aid channels and related non-networked, national, and regional mutual aid channels.

Most counties also have gateway units, either mobile or at communications centers where dispatching occurs. Police and fire agencies have caches of radios to exchange during special operations, large wildfires, or task force operations. Arizona officials are considering continuity of government as its prime directive for the strategic technology reserve (STR), with augmentation of the current reserves that are deployed throughout Arizona. There are currently five mobile communications vehicles placed in strategic locations around the State to ensure the shortest response times. When deployed, the vehicles are staffed by NIMS-qualified communications personnel. From the time a call is placed to the time the asset is deployed on location is generally within three hours. Public Safety Interoperable Communications (PSIC) grants have been used to enhance existing STR assets.

Arizona is currently conducting a statewide Target Capabilities Assessment (TCA) through the Arizona Department of Homeland Security. The TCA is being done to ensure that AZDOHS is leveraging grant funds in the most efficient and effective ways to make the biggest impact on Arizona's preparedness for, response to and recovery from disasters. The TCA will provide an analysis of the State's communications capabilities as well as many other target capabilities, to identify gaps in the State's ability to prevent, respond to and recover from hazards (terrorism and man-made), and assess needs to address those gaps. The TCA will help target future funding to address these gaps.

In order to support proposed communications related technical initiatives, the State microwave system is being upgraded from analog to digital, subject to funding availability. This upgrade, being conducted by the Arizona Department of Public Safety's Wireless Systems Bureau (DPS/WSB), is critical to statewide communications interoperability in Arizona. Many local agencies utilize the microwave infrastructure from the State to support their operability and interoperability needs.

Regional system updates and updates regarding interconnections between regional systems will be included in Arizona's SCIP currently being extensively updated.

The following table lists the major State agency systems in Arizona and includes those used for operable as well as interoperable communications and wireless data networks.

State System Name	Description	Status
DPS Microwave Backbone Infrastructure	Analog technology; moving to digital; southern loop expected to be complete in 2009	Existing and being enhanced
AZ Interagency Radio System (AIRS)	VHF, UHF, 800 MHz conventional	Existing and being extended
Statewide 700 MHz System for State agencies (with possible usage by others)	P25 700 MHz digital trunked	Planned, subject to funding
Game & Fish, Dept. of Corrections, Dept. of Juvenile Correction, Parks Board & State Land Dept., Dept. of Agriculture	VHF conventional	Existing
Department of Public Safety	UHF conventional	Existing
Dept. of Transportation	VHF conventional; 800 MHz trunked	Existing
DEMA Radio Network (DRN)	VHF conventional	Existing
EMSCOM, Veterans Memorial Coliseum, Shared Government Operations	UHF conventional	Existing

Arizona is currently focused on promoting regional systems and interconnections between those systems.

Regional System Name	Description	Status
Regional Wireless Cooperative (RWC) – City of Phoenix and Surrounding Cities including Avondale, Chandler, Daisy Mountain, El Mirage, Goodyear, Guadalupe, Maricopa, Peoria, Sun City, Sun Lakes, Surprise & Tempe	800 MHz P25, simulcast trunked	Existing
TOPAZ Regional Wireless Cooperative (TRWC) – City of Mesa (TOPAZ) with partner cities of Apache Junction, Gilbert and Queen Creek.	800 MHz P25, simulcast trunked	Existing
Pima County Wireless Integrated Network (PCWIN) – Pima County; City of Tucson; Oro Valley; Marana; Tohono O'odham Tribe; Variety of fire districts - http://www.pima.gov/bonds/wireless/	800 MHz P25, simulcast trunked	In development; Expected completion 2013
Central Arizona Project	800 MHz trunked	Existing
Salt River Project	VHF conventional, UHF conventional, 900 MHz trunked	Existing
Arizona Public Service	800 MHz trunked	Existing
Northern Arizona University and City of Flagstaff	800 MHz trunked	Existing
Yuma Regional Communications System (YRCS)	800 MHz, P25 trunked	Existing and being enhanced
Phoenix Fire Regional Dispatch	VHF conventional	Existing
Prescott regional communications	VHF conventional	Existing
Sedona fire regional	VHF conventional	Existing

Technology Initiatives

The following table outlines Arizona's strategic communications technology initiatives, gaps, owners, priority and status:

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
# 4. Complete the Arizona Interagency Radio System (AIRS) by deploying remaining AIRS suites	Need to address coverage gaps.	DPS/WSB	Short-term, High Priority	In Progress
# 5. Implement, enhance and promote functional Regional Systems in support of interoperable communications. *(See Regional system chart above).*	Local networks will require maintenance & enhancements to support multiple users.	PSCC / Regional Partners	Medium-term, High Priority	In Progress
# 6. Upgrade the statewide microwave backbone infrastructure to digital technology.	Connectivity and digital capability for systems statewide.	DPS/WSB	Long-term, High Priority	In Progress
# 7. Implement the State Strategic Technology Reserve (STR).	Augmentation of current reserves in support of continuity of government.	AZDEMA	Short-term, High Priority	In Progress
# 8. Upgrade operable communication systems for State Agencies in support of interoperable communications.	Needs are to be determined.	State Agency Committee	Long-term, High Priority	Not Started

Supportive Objectives	Gap	Owner	Milestone Date	Status *(Complete, In Progress, Not Started)*
6.1. Complete the Microwave Southern Loop Digital Upgrade	Connectivity and digital capability for systems in key area of the State.	DPS/WSB	2009	In Progress
6.2. Complete the Microwave Western Loop Digital Upgrade	Connectivity and digital capability for systems in second-most populated area of the State.	DPS/WSB	2012, subject to recommencement of State funding	Planned; On Hold due to State budget crisis
6.3. Complete the Microwave Northern Loop Digital Upgrade	Connectivity and digital capability for systems in least populated area of the State.	DPS/WSB	2017, subject to recommencement of State funding	Not Started

Training and Exercises

Overview of the diversity, frequency, and inter-agency coordination of training and exercises

There are two types of training and exercise plans in Arizona.

The first type of training occurs at the local jurisdictional and discipline level and covers job basics, roles, and responsibilities. Additionally, each year local governments conduct their own training and exercise programs, which are generally multi-disciplinary and inter-jurisdictional within a county government.

The second training and exercise program is conducted by the State and often deals with matters of State and national security. The Arizona Division of Emergency Management (ADEM) within the Arizona Department of Emergency and Military Affairs (DEMA) has an extensive training and exercise program, with schedules posted on its website. AZDEMA actively recruits participants in its training classes by contacting local government EOCs. The State offers a large number of classes to local emergency responders that are multi-disciplinary, multi-jurisdictional, and include Federal, State, local, and tribal entities.

Training

Arizona's training program crosses all jurisdictions and is multi-disciplinary. Training is provided on a regular basis, thus creating continual training opportunities for State, local, and tribal entities.

There are formal State training programs and train-the-trainer classes in the Homeland Security Exercise and Evaluation Program (HSEEP) process.

The ADEM training program is designed to instruct emergency responders in NIMS and ICS; however, ADEM does not currently maintain a separate training class or curriculum for interoperable communications. The Arizona State Land Department teaches and provides credentials for Communications Unit Leader (COML) and Communications Unit Technician (COMT) classes through the National Wildfire Coordinating Group (NWCG).

The PSIC Office, in conjunction with local jurisdictions, will provide six OEC COML training sessions statewide during 2009. Additionally, one of the few nationwide train-the-trainer instructors is a member of Arizona's PSCC. Arizona is developing a formal COML program to provide additional training and credentialing for public safety professionals.

Exercises

Exercises are conducted with other levels of government and include After Action Reports and Improvement Plans regularly. Communications is a component of many exercises, but our stakeholders feel the communications aspect of exercises needs considerable improvement.

During May 2009, a Regional OP-TTX Communications Based Training Exercise was successfully conducted in Yuma, Arizona as part of a Technical Assistance (TA) award to the State of Arizona, through the PSIC Office. A total of 69 local, state and federal first responders from 21 different agencies participated in the exercise. A gap closure plan is being implemented to close all gaps identified by the exercise.

Training and Exercises Initiatives

The following table outlines Arizona's training and exercises strategic initiatives, gaps, owners, priority and status:

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
# 10. Develop and implement a Training Plan to address interoperable communications.	Training curriculum must address all communication interoperability initiatives.	PSCC	Medium-term, Medium Priority	In Progress
# 11. Develop and implement a strategy for exercises focused on or incorporating interoperable communications..	Exercise strategy must address interoperable communications initiatives.	PSCC	Medium-term, Medium Priority	In Progress

Supportive Objectives	Gap	Owner	Milestone Date	Status *(Complete, In Progress, Not Started)*
10.1. Develop and implement AIRS Training.	Expand usage of AIRS.	PSCC	2010	In Progress
10.2. Implement COML training program.	Expand availability of COML training and formalize training program.	PSIC or other	2010	In Progress
10.3. Implement COMT training program.	Expand availability of COMT training and formalize training program.	PSIC or other	2011, subject to National Program roll-out	Not started

Usage

Overview of the usage and promotion of interoperability solutions

The concept of interoperability is promoted through an evolving statewide outreach program, open public meetings, as well as a user-friendly website and regular communications to interested parties. Local governments are interoperable with the equipment they rely on for day-to-day situations and most emergencies. In areas that do have shared radio systems, daily interoperability exists.

Testing is not done on a regular basis; rather, equipment is usually used during roll call or through drills and exercises. Testing is done with Federal, State, and local agencies and failures are found through usage or incident related failures.

Arizona does not use a common, statewide radio system with the exception of AIRS. AIRS is more used for localized emergency incidents rather than regional interoperability; however its use is expected to increase as availability increases. Mutual aid frequencies, on which AIRS operates, are usually not used for pre-planned events.

The State recognized a gap in outreach efforts and recruited an outreach manager to promote interoperability awareness, initiatives, and best practices throughout Arizona. The State encourages and coordinates collaborative efforts and identifies and helps address State, regional, and local barriers to advancing interoperability solutions and usage. PSIC outreach activities include: stakeholder engagement; information sharing; identification of needs and resources; and participation in training and exercises.

Arizona has developed partnerships with members of the PSCC, SIEC and workgroups as well as agency public information officers, communication managers, regional communication centers and emergency managers. These partnerships have allowed the State to leverage the knowledge and expertise of many people, to be able to share interoperable communication information with their constituencies, and at the same time bring back information to the PSCC, SIEC and the PSIC Office for consideration.

Usage and Outreach Initiatives

The following table outlines Arizona's usage and outreach strategic initiatives, gaps, owners, priority and status:

Initiative	Gap	Owner	Priority	Status *(Complete, In Progress, Not Started)*
# 12. Create and implement an education and outreach plan in support of interoperable communications..	To ensure key stakeholders, policy members, and practitioners understand the issues, and current/desired future state of interoperability in Arizona.	PSCC	Medium-term, Medium Priority	In Progress

Supportive Objectives	Gap	Owner	Milestone Date	Status *(Complete, In Progress, Not Started)*
12.1 Establish a full-time interoperability outreach manager.	Identified Need for additional outreach.	PSCC	October 2008	Complete

Appendix A: Strategic Initiatives and Supporting Objectives

Revised Strategic Initiatives and Supporting Objectives approved by the Arizona Public Safety Communications Advisory Commission (PSCC) on May 19, 2009 after extensive statewide statkeholder input:

Continuum	#	Approved: 5/19/2009	Tracking				
		Strategic Initiative ■ Supporting Objective	Priority	Term	Target Completion Dtae	Lead	Status
Governance	**1**	**Expand and implement Interoperable Communications Governance Model & Plan.**	High	Short	2010	PSCC	In progress
	1.1	■ Conduct an annual SCIP review and update the plan.	High	Ongoing	Annual	PSCC	In progress
	1.2	■ Develop a Comprehensive Emergency Communications Plan addressing regional emergencies, catastrophic loss and mass evacuation/ingress.	High	Short	2010	TBD	TBD
	1.3	■ Develop TICPs and utilization of CASM.	Med.	Med.	2011	Regional Partners	In progress
	1.4	■ Strengthen SIEC.	Med.	Short	2009	PSCC/SIEC	In progress
	2	**Develop Long-term Plan for Statewide Interoperability for voice and data.**	Med.	Med.	2011	PSCC	In progress
	2.1	■ Develop Long-term Plan for Statewide Interoperability for voice.	Med.	Med.	2011	PSCC	In progress
	2.2	■ Develop Long-term Plan for Statewide Interoperability for data.	Med.	Med.	2011	PSCC	Not started
	3	**Develop & implement Long-term Funding and Sustainability Strategy for interoperable communications.**	Med.	Med.	2011	PSCC	Not started
Technology	**4**	**Complete the Arizona Interagency Radio System (AIRS) by deploying remaining AIRS suites.**	High	Short	2009	DPS/WSB	In progress
	5	**Implement, enhance and promote functional Regional Systems in support of interoperable communications.**	High	Ongoing	On-going	Regional Partners	In progress
	6	**Upgrade the statewide Microwave (M/W) backbone infrastructure to digital technology.**	High	Long	2017	DPS/WSB	In progress
	6.1	■ Complete the M/W Southern Loop Upgrade.	High	Short	2009	DPS/WSB	In progress
	6.2	■ Complete the M/W Western Loop Upgrade.	High	Med.	2012	DPS/WSB	Not started
	6.3	■ Complete the M/W Northern Loop Upgrade.	High	Long	2017	DPS/WSB	Not started
	7	**Implement the State Strategic Technology Reserve (STR).**	High	Short	2010	ADEM	In progress
	8	**Upgrade operable communication systems for State Agencies in support of interoperable communications.**	High	Long	2015	State Agency Committee	In progress
	8.1	■ Implement immediate solutions to enhance operable communication systems for State agencies in support of interoperable communications.	High	Short	2010	State Agency Committee	In progress
	8.2	■ Implement upgrades to operable communication systems for State agencies in support of interoperable communications.	Med.	Long	2015	State Agency Committee	Not started
SOPs	**9**	**Establish Policies, Standards and Procedures (PSP) Framework, and implement PSPs, including SOPs, for interoperable communications.**	High	Med.	2011	PSCC/SIEC	In progress
Training & Exercise	**10**	**Develop and implement a Training Plan to address interoperable communications.**	Med.	Med.	2011	PSCC	New
	10.1	■ Develop and implement AIRS Training.	High	Short	2010	PSCC	Not started
	10.2	■ Implement COML training program.	Med.	Med.	2010	TBD	Not started
	10.3	■ Implement COMT training program.	Med.	Med.	2011	TBD	Not started
	11	**Develop and implement a strategy for exercises focused on or incorporating interoperable communications.**	Med.	Med.	2011	PSCC	New
Usage & Outreach	**12**	**Create and implement an education and outreach plan in support of interoperable communications.**	Med.	Med.	2010	PSCC	In progress